Remarks

After amendment, claims 42-47 and 56-57 remain pending in the present application. Claims 1-16 were cancelled *without prejudice* in a preliminary amendment. Claims 27-41 and 48-55 are cancelled *without prejudice* in light of the Examiner's restriction requirement and Applicants' election of the Group IV invention with traverse. The amendment to claims 42-47 have been made to address the Examiner §112, second paragraph rejection. Claims 56-57 are new. Support for the present amendment can be found throughout the originally filed specification, including the original claims, and in particular, at page 4, including the second full paragraph, page 8, the description of figure 7, figure 7, page 36, the first full paragraph and the bottom of page 67 and the top of page 68 (the first 8 lines of page 68) before the DISCUSSION section. No new matter has been added by way of the present invention.

The Examiner has rejected claims 42-47 variously under 35 U.S.C. §112, first and second paragraphs. Applicants shall address each of the Examiner's rejections in the sections which follow.

The Rejection Under 35 U.S.C. §112, Second Paragraph

The Examiner has rejected claims 42-47 under 35 U.S.C. §112, second paragraph for the reasons which are set forth in the August 7, 2006 office action on pages 3-4. Applicants have amended claims 42-47 accordingly to address the Examiner's rejection here. Claim 42 has been amended to clear indicate that one or both of the G protein beads or the ligand beads are colored, thereby providing a system which clearly allows distinguishing between agonist, antagonist and inactive compounds in the method. Regarding the term "epitope-recognizing beads", the claims clearly set forth that the G-protein beads comprise epitope-recognizing beads having an epitope bearing heterotrimeric G protein bound thereto. Claim 44 has been amended to reflect the fact that the fluorescent moiety of claim 43 is a fluorescent protein fused to said G protein

coupled receptor. Claim 45 has been amended to reflect the fact that the detectable β2-adrenergic receptor containing a fluorescent moiety is a β2AR-Green Fluorescent Protein (GFP) fusion protein.

In order to address the rejection of claim 47 for inclusion of the term "Texas Red" which is a trademarked derivative of a fluorescent moiety, claim 47 has been amended to recite that the fluorescent moiety is a sulforhodamine 101 fluorescent moiety. It is noted that Texas Red is a sulfonyl chloride derivative of sulforhodamine 101. See the attached literature indicating the chemical structure of sulforhodamine 101 and the PUB MED abstract from *J. Immunol. Methods,* 1982, 50(2): 193-204. It is respectfully submitted that the amended claims meet the requirements of 35 U.S.C. §112, second paragraph.

The §112, First Paragraph Rejection

The §112, First Paragraph Rejection

The Examiner has rejected original claims 42-47 under 35 U.S.C. §112, first paragraph as being non-enabled for the reasons which are stated in the office action on pages 5-7. Essentially, it is the Examiner's view that without the labeling of the G-protein beads, the claim is non-enabled.

In order to address the Examiner's rejection, Applicants have amended the claims to recite the fact that the G-protein beads or the ligand beads are detectably colored, thus enabling detection of a change which occurs (binding) at either of those beads. The change in detectable color at the G-protein beads or the ligand beads (depending upon which bead is colored) which occurs as a consequence of binding will result in a measurable event, and consequently, each characteristic activity of a compound, namely, agonist activity, antagonist activity or inactivity may be readily determined using the presently claimed method. For example, an agonist which promotes the binding of the detectable GPCR to the G-protein bead will result in a detectable event, the displacement of the detectable GPCR at the ligand bead by an antagonist will result in a detectable

event, and the inactivity of a compound which neither displaces GPCR from the ligand beads nor promotes the binding of GPCR to G-protein beads will also be detectable. Consequently, the present method clearly provides a method for detecting agonist activity, antagonist activity or inactivity of a compound to be tested within the method. It is respectfully submitted that the instant method is clearly enabled. Applicants respectfully submit that the newly presented amended claims fully address the Examiner's comments and concerns in this regard.

For all of the reasons which are set forth hereinabove, Applicants respectfully submit that the application is in condition for allowance and early action resulting in allowance of the instant application is earnestly solicited.

No fee is due for the presentation of this amendment. Claims 27-41 and 48-55 have been cancelled in this application, two dependent claims 56-57 have been added. Please charge any fee due or credit any overpaypment to Deposit Account No. 04-0838. Small entity applies to the present application.

Respectfully submitted,

Dated: November 7, 2006

Henry D. Coleman
Reg. No. 32,559
714 Colorado Avenue
Bridgeport, Connecticut 06605-1601
(203) 366-3560

Certificate of Mailing

I hereby certify that this correspondence is being sent by first class mail in an envelope addressed to the Commissioner of Patents, Mail Stop Non-Fee Amendment, P.O. Box 1450, Alexandria, VA 22313-1450 on November 7, 2006.

Henry D. Coleman, Reg. No. 32,559